



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,625	08/14/2006	Tadashi Marumoto	2006_1039A	9667

513 7590 06/23/2011  
WENDEROTH, LIND & PONACK, L.L.P.  
1030 15th Street, N.W.,  
Suite 400 East  
Washington, DC 20005-1503

EXAMINER

NAKARANI, DHIRAJLAL S

ART UNIT

PAPER NUMBER

1787

NOTIFICATION DATE

DELIVERY MODE

06/23/2011

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ddalecki@wenderoth.com

coa@wenderoth.com

### Office Action Summary

**Application No.**

10/584,625

**Applicant(s)**

MARUMOTO, TADASHI

**Examiner**

Dhirajlal Nakarani

**Art Unit**

1787

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 May 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-5,7,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7,9 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-942)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 29, 2011 has been entered.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 3-5, 7, 9 and 10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as filed fail to provide support for the limitation "non-surfactant phosphoric acid ester compound" in claim 1, lines 3-4, and in claims 3, 4 and 7, line 2. Applicant has not pointed where the

support for this limitation can be found in the specification as filed. Applicant has submitted, as an evidence, a translation of Table 1 titled: Anionic surfactant of the book "Function & Application of Surfactants, Editorial Supervision: Tsunoda Mitsuo, CMC Publishing Co., Ltd., April 25, 2006" showing that claimed phosphoric acid compound such as trialkyl phosphate, trialkoxyalkyl phosphate, triaryl phosphate, alkyl aryl phosphate etc. are not a surfactant. The Examiner agrees that these claimed compounds are not an anionic surfactant. However compounds such as trialkyl phosphate e.g. trioctyl phosphate, tributyl phosphate, tricresyl phosphate etc. are non-ionic surfactants as evidenced in paragraph [0062] of U. S. Patent Application Publication US 2006/0133978 A1, paragraph [0081] of U. S. Patent Application Publication US 2006/0019153 A1 and column 31, lines 26-27 of U. S. Patent 4,917,996. Therefore in the absence of clear support for the limitation "non-surfactant phosphoric acid ester compound" in the specification as filed, it constitutes new matter.

5. Claims 1, 3-5, 7, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al (U. S. Patent Application Publication US 2003/0054160 A1) in view of Fukatani et al (U. S. Patent Application Publication US 2004/0234778 A1), Coaker et al (U. S. Patent 3,841,890) and, as an evidence, William et al (U. S. Patent Application Publication US 2006/0133978 A1), Imachi et al (U. S. Patent Application Publication US 2006/0019153 A1) and Matsuzaka et al (U. S. Patent 4,917,996).

Fisher et al disclose a glass laminate comprising: glass plate/interlayer/glass plate (Paragraph [0041]). The interlayer comprises: polyvinyl butyral, plasticizer, coloring agent, LaB<sub>6</sub>, ITO and/or ATO (Paragraphs [0022] to [0040]). Fisher et al also disclose dispersing LaB<sub>6</sub>, ITO and/or ATO in plasticizer Examples 2, 3 and 6). Fisher et al disclose usable plasticizer mixtures of phosphates and adipates such as disclosed in U. S. Patent 3,841,890 (Paragraph [0040], lines 12-13). Fisher et al fail to disclose use of claimed phosphoric acid ester as dispersion stabilizer.

Fukatani et al disclose a dispersion of ITO and/or ATO in plasticizer using phosphate ester compound as dispersion stabilizer from 0.0005 to 5.0 wt. parts per 100 wt. polyvinyl acetal, such as polyvinyl butyral for reducing haze due to agglomerates of ITO and/or ATO (Paragraphs [0096], [0097] and [0190]). Fukatani et al disclose claimed phosphoric acid ester compound (Paragraph [0066]).

Coaker et al disclose that a mixture of a phosphate ester plasticizer and a diester of an aliphatic dicarboxylic acid wherein the diester contains from 14 to 28 carbon atoms for polyvinyl butyral interlayer. Coaker et al's blend allows the use of many phosphate and diester plasticizers which are unsuitable when used alone (Abstract). Coaker et al disclose ratio of phosphate ester plasticizer to diester plasticizer from 5:95 to 95:5 (Col. 4, lines 4-6). Coaker et al disclose ratio of phosphate ester plasticizer to diester plasticizer: 5/95 (Example 5) and 10/90 (Example 6). Coaker et al's disclosed phosphate ester plasticizer includes phosphate ester plasticizer disclosed by Fukatani et al (Paragraph [0066]).

Williams et al disclose phosphate ester such as trioctyl phosphate, tributyl phosphate, triauryl phosphate as non-ionic surfactant (Paragraph [0062]). Imachi et al

disclose trioctyl phosphate as surfactant (Paragraph [0081]). Matsuzaka et al disclose tricresyl phosphate as dispersant (Col. 31, lines 26-27).

Therefore it would have been obvious to a person of ordinary skill in the art at the time of this invention made to utilize disclosure of Fukatani et al and Coaker et al in the invention of Fisher et al to disperse  $\text{LaB}_6$ , ITO and/or ATO in a plasticizer containing phosphoric acid ester compound, which are non-ionic surfactant as evidenced by Williams et al, Imachi et al and Matsuzaka et al, as dispersion stabilizer to prevent haze and for compatibility.

No claims are allowed.

6. Applicant's arguments filed April 29, 2011 have been fully considered but they are not persuasive. In reference to rejection of claims 1, 3-5, 7, 9 and 10 under 35 U.S.C. 103(a) as being unpatentable over Fisher et al (U. S. Patent Application Publication US 2003/0054160 A1) in view of Fukatani et al (U. S. Patent Application Publication US 2004/0234778 A1), Coaker et al (U. S. Patent 3,841,890), applicant essentially argue that the claimed phosphoric acid ester such as trioctyl phosphate, is not a surfactant and as an evidence, a translation of Table 1 titled: Anionic surfactant of the book "Function & Application of Surfactants, Editorial Supervision: Tsunoda Mitsuo, CMC Publishing Co., Ltd., April 25, 2006" showing that claimed phosphoric acid compound such as trialkyl phosphate, trialkoxyalkyl phosphate, triaryl phosphate, alkyl aryl phosphate etc. are not a surfactant.

These arguments are unpersuasive because the claimed phosphoric acid ester are plasticizer and are also non-ionic surfactants as evidenced in paragraph [0062] of U. S. Patent Application Publication US 2006/0133978 A1, paragraph [0081] of U. S. Patent Application Publication US 2006/0019153 A1 and column 31, lines 26-27 of U. S. Patent 4,917,996. However the Examiner agrees that the claimed phosphoric acid esters are not anionic surfactants but are non-ionic surfactants.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dhirajlal Nakarani whose telephone number is (571)272-1512. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie E. Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

Art Unit: 1787

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/D. S. Nakarani/  
Primary Examiner, Art Unit 1787**

DSN  
June 15, 2011.